

Proposed Amendments to the Claims:

Listing of Claims:

1. (currently amended) A controller comprising:

a rotatable platter journaled for rotation, said rotatable platter including a top surface and a side circumferential skirt substantially perpendicular to said top surface, said circumferential skirt includes a random pattern;

an relative displacement detecting optical system comprising a lens, an image sensor, a light source and a signal processor responsive to relative movement of said rotatable platter based on information derived from said random pattern;

said optical system being positioned to optically acquire surface sequential images from said random pattern of said side circumferential skirt and calculate differences in said sequential surface images of said random pattern thereby determining the direction and relative magnitude displacement of rotation of said rotatable platter; and

said optical system including an output responsive to said rotatable platter.

2. (cancelled)

3. (cancelled)

4. (currently amended) The controller of Claim 1 wherein said output optical system is responsive to the relative rotational velocity calculated from said relative displacement of said rotational platter.

5. (currently amended) The controller of Claim 1 wherein said output optical system is responsive to the relative rotational position calculated from said relative displacement of said rotational platter.

Claims 6-16 (cancelled)

17. (previously presented) The controller of Claim 1 further comprising:  
a stationary base, wherein optical system is fixed with respect to the stationary base;  
wherein said rotatable platter has at least one degree of freedom of movement in addition to rotation, an extent of movement of said at least one degree of freedom of movement being determined by said optical system optically acquiring sequential images from said random pattern approximately parallel to the axis of rotation of said side circumferential skirt.

18. (previously presented) The controller of Claim 1 wherein said light source is a light emitting diode (LED).

19. (previously presented) The controller of Claim 1 wherein said optical system is an based on optical navigation system technology.

20. (previously presented) The controller of Claim 1 wherein the controller is used for a disk jockey application.